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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661				
			EXAMINER TON, ANTHONY T	
			ART UNIT 2661	PAPER NUMBER 2

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/812,022

Applicant(s)

VOGEL ET AL.

Examiner

Anthony T Ton

Art Unit

2661

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-16, 21-28 and 32-36 is/are rejected.
- 7) ☒ Claim(s) 9-11, 17-20, 29-31 and 37-40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "200" and "201" in **Fig.1** have both been used to designate "**User Terminal**".

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. **The abstract** of the disclosure is objected to because the following:
 - a) Term "**requestors 201**" in line 2 is improper since it is incorporated with a disclosure cited in page 15 line 15.

Examiner suggests changing this term to "**requestors 220**" as described in Fig.2.
 - b) Term "**manager 401**" in lines 2 and 7 is improper since in Fig.2 it is manager 420.

Examiner suggests changing this term to "**manager 420**".
 - c) Term "**ADPE**" in line 5 is improper since there is no place in the specification that completely spell out once for this abbreviation.

Examiner suggests changing this term to “**Automatic Data Processing Equipment (ADPE)**”.

d) Term “**link (210)to individual**” in line 7 is missing a space between “(201)” and “to”

Examiner suggests changing this term to “**link (210) to individual**”.

e) Term “**committed information rate (214)**” in line 9 is improper since the reference “(214)” cannot be the same as the reference of the “fair share rate (214)” as disclosed in line 10 of the abstract.

Examiner suggests changing this term to “**committed information rate**”.

Correction is required. See MPEP § 608.01(b).

3. **The disclosure** is objected to because of the following informalities:

a) Term “**RSVP request**” in page 5 line 22 is improper since there is no place in the specification that completely spell out once for this abbreviation.

Examiner suggests changing this term to “**resource reservation protocol (RSVP) request**”.

b) Term “**DOCSIS**” in page 7 line 23 is improper since there is no place in the specification that completely spell out once for this abbreviation.

Examiner suggests changing this term to “**data over cable service interface specification (DOCSIS)**”.

c) Term “**minimum uplink bandwidth allocation 212**” in page 16 lines 17-18 is improper.

Examiner suggests changing this term to “**minimum uplink bandwidth allocation 213**”.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-8, 12-16, 21-28 and 32-36** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dail et al.** (US Patent No. **5,570,355**) in view of **Gilbert et al.** (US Patent No. **6,016,311**), hereinafter referred to as Dail and Gilbert, respectively.

a) **In Regarding to Claim 1:** **Dail disclosed** in a communication system including an uplink and a bandwidth manager storing bandwidth release parameters, said system being subject to user agreement terms and to system data loading (*see Figs.5 and 11*), a method of allocating uplink bandwidth among user terminals of the system subject to terminal data loading, the method comprising:

assigning fair shares of the uplink bandwidth allocated to one or more of the user terminals based on one or more of the system data loading, the terminal data loading and the user agreement terms (*see col.3 lines 51-64*); and

releasing uplink bandwidth previously allocated to one or more of the user terminals based on one or more of the terminal data loading and the bandwidth release parameters (*see Figs.23 and 24; and col.14 lines 48-58*).

Dail failed to explicitly disclose the communication system is a **satellite** communication system (**note that** the satellite communication system is also recited by all claims); and the

method comprising assigning initial bandwidth allocations of the uplink bandwidth for one or more of the user terminals.

Gilbert inherently disclosed such a **satellite** communication system (*see Fig.6 and col.11 lines 1-2: Direct Broadcast Satellite (DBS) Receiver equipment 134*); and

Gilbert explicitly disclosed such assigning initial bandwidth allocations of the uplink bandwidth for one or more of the user terminals (*see col.5 lines 30-57*).

Therefore, at the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such a **satellite** communication system, as taught by Gilbert with Dail, so that communication terminals located in large geographical areas can be communicated to each other. The motivation for doing so would have been to control a communication system in a large geographical area effectively. Thus, it would have been obvious to combine Gilbert and Dail the invention as specified in the claim; and

at the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such assigning initial bandwidth allocations of the uplink bandwidth for one or more of the user terminals, as taught by Gilbert with Dail, so that initial bandwidth allocations can be assigned to communication terminals and thereafter an actual set of bandwidth allocations will assign to the communication terminals depending on their requirements. The motivation for doing so would have been to provide communication link efficiency because the link is enhanced by dynamically adapting to the uplink bandwidth requirements of the communication terminals. Therefore, it would have been obvious to combine Gilbert and Dail the invention as specified in the claim.

b) In Regarding to Claim 2: Dail further disclosed wherein said assigning initial bandwidth allocations comprises:

determining initial bandwidth needs at one or more of said user terminals in response to data activity at said one or more user terminals (*see col.3 lines 57-64: bandwidth allocation for a request from the station to the head end; and col.4 lines 44-57*);

transmitting initial bandwidth requests from one or more of the user terminals to the bandwidth manager (*see col.4 lines 39-43*); and

transmitting the initial bandwidth allocations to one or more of the user terminals (*col.13 lines 30-48: bandwidth assignment*).

c) In Regarding to Claim 3: Dail further disclosed wherein the uplink comprises at least one allocated signaling channel and wherein the step of transmitting initial bandwidth requests comprises communicating over the allocated signaling channel (*see Fig.7 and col.14 lines 18-29*).

d) In Regarding to Claim 4: Dail further disclosed wherein the step of transmitting initial bandwidth requests comprises communicating over the initial bandwidth allocation in the uplink (*see Fig.7: slots 706 and 722 (hence, the terminals can communicate with the controller via these signaling slots)*).

e) In Regarding to Claim 5: Dail further disclosed wherein the communication system is arranged to transmit data via a fixed bandwidth, and

wherein the method further comprises identifying the need for a fixed bandwidth based on the data to be transmitted over the communication system (*see col.3 lines 52-64*).

f) **In Regarding to Claim 6: Dail further disclosed** wherein the step of transmitting initial bandwidth requests comprises transmitting initial minimal bandwidth allocation requests based on the data to be transmitted over the communication system (*see col.5 line 5-27*).

g) **In Regarding to Claim 7: Dail further disclosed** wherein the step of transmitting initial bandwidth requests comprises transmitting a request from a first terminal of said user terminals for a fixed amount of bandwidth at the first terminal's allocated fair share of the uplink bandwidth based on the data to be transmitted over the communication system (*see co.7 lines 40-60: TDMA; and col.26 lines 38-59: a first call*).

h) **In Regarding to Claim 8: Dail further disclosed** wherein the step of assigning fair shares of the uplink bandwidth comprises transmitting a request from a first terminal of said user terminals for bandwidth at the first terminal's fair share of the uplink bandwidth based on the data to be transmitted over the communication system (*see col.1 lines 34-38: TDMA (hence a request from a first terminal of the user terminals); col.3 lines 51-54; and col.4 lines 44-57*).

i) **In Regarding to Claim 12: Dail further disclosed** wherein the step of transmitting the initial bandwidth allocations to the one or more user terminals further comprises the step of transmitting the initial bandwidth allocations from the bandwidth manager (*see col.3 lines 43-50*).

j) **In Regarding to Claim 13: Dail further disclosed** wherein the communication system comprises a downlink and wherein the step of transmitting the initial bandwidth allocations to the one or more user terminals comprises communicating over a signaling channel allocated in the downlink to said one or more user terminals (*see Fig.9; and col.5 lines 28-40*).

k) **In Regarding to Claim 14: Dail further disclosed** further comprising allocating a fixed bandwidth to a first terminal of the user terminals in response to a request for a fixed bandwidth from the first terminal to the bandwidth manager (*see col.1 lines 34-38: TDMA; and col.16 lines 34-67*).

l) **In Regarding to Claim 15: Dail further disclosed** further comprising allocating to the first terminal a fixed amount of bandwidth at the first terminal's allocated fair share of the uplink bandwidth based on the data to be transmitted over the communication system (*see col.1 lines 34-38: TDMA; col.3 lines 52-64: fixed length time slot; and see claim 1*)

m) **In Regarding to Claim 16: Dail further disclosed** further comprising allocating to the first terminal bandwidth at the first terminal's fair share of the uplink bandwidth based on the data to be transmitted over the communication system (*see col.1 lines 34-38: TDMA; col.4 lines 44-57*) .

n) **In Regarding to Claims 21-28 and 32-36:** these claims are rejected for the same reasons as Claims 1-8 and 12-16, respectively because the claimed subject matters of the method in Claims 21-28 and 32-36 are the same as that of apparatus claims 1-8 and 12-16.

6. **Claims 1-8, 12-16, 21-28 and 32-36** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dail et al.** (US Patent No. 5,570,355) in view of **Kim et al.** (US Patent No. 4,625,308), hereinafter referred to as Dail and Kim, respectively.

a) **In Regarding to Claims 1-8 and 12-16: Dail disclosed** all aspects of claims 1-8 and 12-16 as described above.

However, Dail failed to explicitly disclose the communication system is a **satellite** communication system (**note that** the satellite communication system is recited by all claims); and the method comprising assigning initial bandwidth allocations of the uplink bandwidth for one or more of the user terminals.

Kim disclosed such a **satellite** communication system (*see Figs. 1-3*); and

Kim explicitly disclosed such assigning initial bandwidth allocations of the uplink bandwidth for one or more of the user terminals (*see col. 14 lines 3-30*).

Therefore, at the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such a **satellite** communication system, as taught by Kim with Dail, so that communication terminals located in large geographical areas can be communicated to each other. The motivation for doing so would have been to control a communication system in a large geographical area effectively. Thus, it would have been obvious to combine Kim and Dail the invention as specified in the claims; and

at the time of the invention, it would be obvious to a person of ordinary skill in the art to combine such assigning initial bandwidth allocations of the uplink bandwidth for one or more of the user terminals, as taught by Kim with Dail, so that initial bandwidth allocations can be assigned to communication terminals and thereafter an actual set of bandwidth allocations will assign to the communication terminals depending on their requirements. The motivation for doing so would have been to provide communication link efficiency because the link is enhanced by dynamically adapting to the uplink bandwidth requirements of the communication terminals. Therefore, it would have been obvious to combine Kim and Dail the invention as specified in the claims.

b) **In Regarding to Claims 21-28 and 32-36:** these claims are rejected for the same reasons as Claims 1-8 and 12-16, respectively because the claimed subject matters of the method in Claims 21-28 and 32-36 are the same as that of apparatus claims 1-8 and 12-16.

Allowable Subject Matter

7. **Claims 9-11, 17-20, 29-31 and 37-40** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Examiner Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony T Ton whose telephone number is 703-305-8956. The examiner can normally be reached on M-F: 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms can be reached on 703-305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ATT
9/10/04


Phirin San